PEER REVIEW COORDINATING DRAFT

TASK ANALYSIS FOR

EMPLOY MORTARS (CRITICAL COMBAT FUNCTION 7)

AS ACCOMPLISHED BY A BATTALION TASK FORCE

Authors: LARRY KASTANEK, HumRRO PAUL JARRETT, HumRRO

Submitted by Harold Wagner, Acting Chief Unit-Collective Training Research Unit and Jack Hiller, Director Training Systems Research Division and Mr. Michael R. McCluskey, Contracting Officer's Technical Representative



U.S. Army Research Institute

Prime Contractor: BDM Federal, Inc. W. J. Mullen, III

POC: Bartholomew J. McIlroy, Jr.,

BDM Federal Inc., (408) 372-3329

Program Director: Thomas J. Lewman

BDM Federal, Inc.

Task Analysis for Employ Mortars as Accomplished by a Battalion Task Force. Critical Combat Function 7 (CCF 7)

Larry Kastanek Paul Jarret

BDM Federal, Inc.

This report is published to meet legal and contractual requirements and may not meet ARI's scientific or professional standards for publication.

July 1996

United States Army Research Institute for the Behavioral and Social Sciences

Approved for public release; distribution is unlimited.

U.S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCES

A Field Operating Agency Under the Jurisdiction of the Deputy Chief of Staff for Personnel

EDGAR M. JOHNSON Director

NOTICES

DISTRIBUTION: This report has been cleared for release to the Defense Technical Information Center (DTIC) to comply with regulatory requirements. It has been given no primary distribution other than to DTIC and will be available only through DTIC or the National Technical Information Service (NTIS).

FINAL DISPOSITION: This report may be destroyed when it is no longer needed. Please do not return it to the U.S. Army Research Institute for the Behavioral and Social Sciences.

NOTE: The views, opinions and findings in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy, or decision, unless so designated by other authorized documents.

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports 1215, lefters on David University of this collection of information, VA 22202-4302, and to the Office of Management and Rights Collection of Information Operations and Reports 1215, lefters on David University of the Collection of Information Operations and Reports 1215, lefters on David University Operations of Operations and Reports 1215, lefters on David University Operations and Reports 1215, l

VY 22202-3002, and to the Office of Management and E	Judget, Paperwork Reduction Project	(0704-0188). Washington DC 20503	s, 1215 Jefferson Davis Highway, Suite 1204, Arlingto
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE July 1996	3. REPORT TYPE AND	DATES COVERED
4. TITLE AND SUBTITLE			07/17/92 - 03/15/96 5. FUNDING NUMBERS
Task Analysis for Employ	Mortars	ļ i	MDA903-92-D-0075-0005
as Accomplished by a Batt	alion Task Force		3414
Critical Combat Function	7 (CCF 7)		001
6. AUTHOR(S) Larry Kastanek			565803 D730
Paul Jarret			
ladi vallet			
7. PERFORMING ORGANIZATION NAME	(S) AND ADDRESS(ES)		. PERFORMING ORGANIZATION
BUM FEDERAL INC.	. ,	15	REPORT NUMBER
DOD CENTER MONTEREY BAY		j	
400 GIGLING ROAD		İ	
SEASIDE, CA 93955			
9. SPONSORING/MONITORING AGENCY	NAME(S) AND ADDRESS(FS)	0.0000000000000000000000000000000000000
O.S. ARMI RESEARCH INSTITU	JTE FOR THE	1	0. SPONSORING/MONITORING AGENCY REPORT NUMBER
BEHAVIORAL AND SOCIAL S	CIENCES		MOLNO! NEI ON MOMBER
5001 EISENHOWER AVENUE		l _C .	ontractor Domont 06 22
ALEXANDRIA, VA 22333-5600			ontractor Report 96-33
11. SUPPLEMENTARY NOTES			
The COR is Michael R. McCl	uskey. This renc	ert is muhliched to m	100t 100t
requirements a	nd may not meet A	RI's scientific or r	refereignal starters
for publication.		a constitute of p	Tolessional standards
12a. DISTRIBUTION/AVAILABILITY STATE	MENT	12	2b. DISTRIBUTION CODE
APPROVED FOR PUBLIC RELEAS DISTRIBUTION IS UNLIMITED.			E. D.OTKIBOTION CODE
DISTRIBUTION IS UNLIMITED.		j	
		ſ	
13. ABSTRACT (Maximum 200 words)			
The purpose of CCF 7 is its subordinate units on	the timety employ	ment of mortar fires	, by the task force and
its subordinate units, on and intent.	the enemy or terr	ain in support of th	e commanders' concept
The outcomes include:			
 The TF FS plan incorporations. 	orates the use of	mortars in support	of TF and Team
2) The mortar platoons' rincorporates mortar f	novements and fir	es are part of a com	prehensive plan that
	TTG2 MICH FUG A.K.	s scheme of mamarian	
Support or command rel for the mortar platoor	lationships based	upon targets and mi	ssion are established
pracool	4.		
4) Coordination between t	ne mortar platoo	n, TF FSE, and the c	ompanies is continuous.
Fires are coordinated	and executed in	a manner that suppor	ts the TF plan.
14. SUBJECT TERMS			45
Employ Mortars, FDC operati	ons, Pre-combat o	checks	15. NUMBER OF PAGES
			16 PRIOF CORE
			16. PRICE CODE
	CURITY CLASSIFICATION	19. SECURITY CLASSIFICATIO	N 20. LIMITATION OF ABSTRACT
ALBERTAL OE'	THIS PAGE	A	- I

OF ABSTRACT

UNCLASSIFIED

UNCLASSIFIED

OF THIS PAGE

UNCLASSIFIED

INDEX

CRITICAL COMBAT FUNCTION 7 EMPLOY MORTARS

Preface	i
Index of Critical Combat Functions (CCF)	1
Structure of Critical Combat Functions	2
Outcome and Purpose of CCF 7	11
Flow Charts by Battle Phase (Plan, Prepare, Execute)	12
Other CCF Which Interact with CCF 7	15
CCF 7 Key Participants by Task	17
Key Inputs and Outputs to CCF 7	19
Task List Summary for CCF 7	22
Planning Task ListPlanning Task List	24
Preparation Task List	27
Execution Task List	32
Call Lessons Learned Relevant to CCF 7	34
Lessons Learned Integrated into CCF 7 Task List	38
CCF 7 Critical Tasks and Other Linkages	42
References	48

PREFACE

This task analysis of EMPLOY MORTARS, Critical Combat Function 7 (CCF 7), is an intermediate product of the process of developing a training strategy for the CCF. The analysis reflects tasks, products, participants and processes required by the TF to place mortar fires on the enemy or terrain to support a task force commander's concept and intent.

CRITICAL COMBAT FUNCTIONS: The integration of related players and tasks that represent a source of combat power. The synchronization of critical combat functions provides maneuver commanders at any echelon with a definable outcome that materially affects the battle.

The battle phases PLAN, PREPARE, and EXECUTE relate to the entire battalion task force (TF) battle vice phasing for this particular task analysis.

This analysis identifies the tasks that the TF Commander, the TF staff, key officers and NCO's and all subordinate and supporting elements of the TF must perform to employ mortars. The processes outlined in this task analysis are never initiated from a standing start due to the continuous nature of battle. For the purposes of analysis and for portrayal, the analysis is depicted as beginning with the receipt of the brigade OPORD. It addresses the actions and coordination activities initiated by the TF commander and staff (Planning Phase); continues through the TF preparation for battle by detailing the modification and refinement of the mortar plan process (Preparation Phase), and culminates with the employment of mortars during the conduct of battle and consolidation/reorganization following the battle (Execution Phase).

The fire support coordination tasks necessary to integrate the TF mortars and the maneuver units are the primary focus of this task analysis. This CCF does not address those mortar tasks associated directly with those actions taken by the mortar platoon or its sections in the conduct of their support mission, such as detailed FDC and gun operations.

In this analysis, an effort was made to identify specific task titles taken directly from the appropriate ARTEP Mission Training Plan (AMTP). Those task titles not taken from the MTP are derived titles that may apply to only part of a subtask or some other element of the AMTP; to multiple subtasks from different, but related, tasks; or to tasks that are not directly stated in the AMTP, but are implied by other tasks or by requirements in an applicable field manual (FM) or other related document.

Battalion task force tasks identified in CCF 18 (Plan for Combat Operations), 19 (Lead and Direct Units During Preparations for the Battle), and 20 (Lead and Direct Units in Execution of Battle) have been integrated into this task analysis as they relate to the battle command of the TF.

INDEX OF CRITICAL COMBAT FUNCTIONS

Grouped By Battlefield Operating System (BOS)

INTELLIGENCE	(1) (2) (3) (4)	Conduct Intelligence Planning Collect Information Process Information Disseminate Intelligence
MANEUVER	(5) (6)	Conduct Tactical Movement Engage Enemy with Direct Fire and Maneuver
AIR DEFENSE	(16) (17)	Take Active Air Defense Measures Take Passive Air Defense Measures
FIRE SUPPORT	(7) (8) (9) (10) (11) (12) (13) (14) (15)	Employ Mortars Employ Field Artillery Employ Close Air Support Conduct Electronic Collection and Jamming Conduct Battlefield PsyOps Employ Chemical Weapons Conduct Counter Target Acquisition Operations Employ Naval Gunfire Coordinate, Synchronize and Integrate Fire Support
MOBILITY AND SURVIVABILITY	(21) (22) (23) (24) (25) (26) (27)	Overcome Obstacles Enhance Movement Provide Countermobility Enhance Physical Protection Provide Operations Security Conduct Deception Operations Provide Decontamination
COMMAND AND CONTROL	(18) (19) (20)	Plan for Combat Operations Direct and Lead Unit During Preparation for the Battle Direct and Lead Units in Execution of Battle
COMBAT SERVICE SUPPORT	(28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39)	Provide Transport Services Conduct Supply Operations Provide Personnel Services Maintain Weapons Systems and Equipment Provide Health Services Treat and Evacuate Battlefield Casualties Conduct Enemy Prisoners of War (EPW) Operations Conduct Law and Order Operations Conduct Civil Affairs Operations Provide Sustainment Engineering Evacuate Non-combatants from Area of Operations Provide Field Services

STRUCTURE OF CRITICAL COMBAT FUNCTIONS RELEVANT TO BATTALION TASK FORCE OPERATIONS

CRITICAL COMBAT FUNCTION: The integration of related players and tasks that represent a source of combat power. The synchronization of critical combat functions provides maneuver commanders at any echelon with a definable outcome that materially affects the battle.

- I. Intelligence BOS The ways and means of acquiring, analyzing and using knowledge of the enemy, weather and terrain required by a commander in planning, preparing and conducting combat operations. These CCF are continuous throughout the planning, preparation and execution phases of the battle.
 - 1. **CCF (1) Conduct Intelligence Planning** The development and coordination of information relative to the enemy, weather and terrain prior to and during the development of the unit OPORD; the planning to collect information from battlefield sources and to acquire intelligence from other headquarters. Focus of this CCF is the Intelligence Preparation of the Battlefield (IPB). This CCF addresses:
 - a. Reconnaissance and Surveillance plan.
 - b. Integrated threat templates (doctrinal; event; input to DST).
 - c. Terrain and Weather analysis.
 - 2. **CCF (2) Collect Information** Obtaining information in any manner from TF elements and from sources outside the TF (e.g., higher headquarters; adjacent units): this CCF includes the tasks associated with managing the processes and activities necessary to collect battlefield information which may eventually be used to provide intelligence relative to the enemy, terrain and weather. This CCF addresses:
 - a. Information collected as a result of R & S plan.
 - b. Continuous information collection and acquisition from all sources.
 - 3. **CCF (3) Process Information** The conversion of information into intelligence through collation, evaluation, analysis, integration and interpretation in a continual process. This CCF addresses:
 - a. Evaluation of threat information.
 - b. Evaluation of physical environment information.
 - c. Integration of intelligence information.
 - d. Development of enemy intentions.
 - e. Development of targeting information.
 - f. Preparation of intelligence reports.
 - g. Update of situational template.
 - h. Provision of battlefield area reports.
 - 4. **CCF (4) Disseminate Intelligence** Transmission of information by any means (verbal, written, electronic etc.), from one person or place to another to provide timely dissemination of critical intelligence to all appropriate members of the combined arms team. This CCF addresses:
 - a. The sending of processed intelligence in a timely manner to those on the combined arms team who can by its receipt, take appropriate actions to accomplish the mission. This includes intelligence on the enemy, terrain and weather.

August 29, 1993 2

- b. The sending of raw intelligence directly from those responsible for reconnaissance and surveillance to the commander should that raw intelligence be time sensitive (and not be subject to receipt and processing by intelligence analysts).
- c. Dissemination of battlefield reports.
- II. Maneuver BOS The employment of direct fire weapons, platforms and systems through movement and fire and maneuver to achieve a position of advantage in respect to enemy ground forces, in order to accomplish the mission. The direct fire weapons are: tank guns; BFV 25mm; anti-tank guns and rockets; attack helicopter guns and rockets; small arms; crew served weapons; directed energy weapons systems.
 - 1. **CCF (5) Conduct Tactical Movement** Position direct fire weapons systems relative to the enemy to secure or retain positional advantage making full use of terrain and formations. Tactical movement occurs when contact with the enemy is likely or imminent but direct fire engagement has not yet occurred. Units supporting maneuver units are included. This CCF addresses:
 - a. Subordinate element OPORD preparation and dissemination.
 - b. Preparation for movement.
 - c. Movement, mounted and dismounted; on and off road.
 - d. Closure of movement tactical assembly area; tactical positions.
 - e. Navigation.
 - f. Force protection.
 - g. Air movement.
 - 2. **CCF (6) Engage Enemy with Direct Fire and Maneuver**—Entering into ground combat with the enemy using direct fire and/or close combat in order to destroy the enemy or cause him to withdraw. This CCF relates only to those direct fire weapons systems associated with the Maneuver BOS. This CCF is initiated with the OPORD at the completion of the planning phase of the battle and includes all tasks associated with subordinate echelon planning, preparation and execution of the battle. This CCF addresses:
 - a. Subordinate element OPORD preparation and dissemination.
 - b. Preparation of engagement areas.
 - c. Rehearsals of battle plans.
 - d. Pre-combat prepare to fire checks.
 - e. Target acquisition.
 - f. Fire control and distribution.
 - g. Fratricide.
 - h. Conduct close combat.
 - i. Integration of direct fire with maneuver.
 - j. Control of terrain.
 - k. Prestocked ammunition.
 - 1. Resupply during operations.
 - m. Maintenance during operations.
 - n. Consolidation and reorganization.
- III. Fire Support BOS The collective, coordinated, and synchronized use of target acquisition data, indirect fire weapons, armed aircraft (less attack helicopters) and other lethal and non-lethal means against ground targets in support of maneuver force operations and to achieve the commanders intent and scheme of maneuver. The Fire Support BOS

addresses these weapons: mortars; field artillery; close air support; electronic measures; naval gunfire.

- CCF (7) Employ Mortars Employment of mortars by the maneuver unit to place fires on the enemy or terrain to support the commander's concept and intent. This CCF initiates with the receipt of an OPORD by the maneuver commander and address those tasks required during the preparation and execution phases of the battle. This CCF addresses:
 - a. Subordinate element OPORD preparation and dissemination.
 - b. Prepare to fire checks.
 - i. Rehearsals.
 - c. Pre-combat checks.
 - d. Development of order to fire.
 - e. Tactical movement.
 - f. FDC operations.
 - g. Target engagements with illumination, smoke, HE.
 - h. Sustainment operations.
- 2. CCF (8) Employ Field Artillery The ways and means employed by the maneuver unit to cause indirect artillery fires to be placed on the enemy or terrain to support the commander's concept and intent. This CCF initiates upon receipt of an OPORD by the maneuver commander and includes tasks performed during the preparation and execution phases of the battle. The Fire Support Coordination tasks necessary to integrate the field artillery and the maneuver units are the primary focus. This CCF does not address those field artillery tasks associated directly with those actions taken by the batteries of the artillery battalion in the conduct of their support mission such as FDC operations, gun operations, etc. This CCF addresses:
 - a. Fire Support Maneuver unit rehearsals.
 - b. FSE operations during the preparation and execution phase of the battle.
 - c. FSO and FIST operations in coordination with their maneuver commander.
 - d. Positioning and movement within the maneuver unit sector or zone.
 - e. Indirect fire missions in support of maneuver commander's concept and intent.
 - f. Sustainment operations.
 - g. Indirect fire planning as battlefield METT-T change.
- 3. **CCF (9) Employ Close Air Support** Planning for, requesting and employing armed aircraft (less attack helicopters) in coordination with other fire support (lethal and non-lethal) against ground targets in support of the maneuver force commander's concept and intent. This CCF addresses:
 - a. Air-ground attack requests.
 - b. Air space coordination and management.
 - c. Air Liaison Officer, Forward Air Controller; other Army Fire Support Coordination Officer; USN/USMC Bde Team Commander, SALT-O and FCT-O tasks that enable air to ground attacks.
- 4. **CCF (10) Conduct Electronic Collection and Jamming**—Actions taken to deny the enemy effective command, control and communications of his own tactical force in support of maneuver commander's concept and intent. This CCS includes jamming, deception, and collection.
- 5. **CCF (11) Conduct Battlefield PsyOps** Conduct psychological activities as an integral part of combat operations to bring psychological pressure to bear on enemy

August 29, 1993 4

- forces and civilians under enemy control in the battle area, to assist in the achievement of tactical objectives in support of maneuver commander's concept and intent.
- CCF (12) Employ Chemical Weapons Employ chemical agents or other means to degrade enemy capabilities in support of maneuver commander's concept and intent.
- 7. **CCF (13) Conduct Counter Target Acquisition Operations** —Suppress (e.g. using smoke or dazzling illumination) or degrade enemy direct observation, optics, radar, sensors, electronic DF equipment, and imaging systems in support of maneuver commander's concept and intent.
- 8. **CCF (14) Employ Naval Gunfire** The means and ends to provide naval gunfire in support of the maneuver commander's tactical operation.
- 9. CCF (15) Coordinate, Synchronize and Integrate Fire Support Coordination of all fire support means in support of the maneuver commanders concept and intent. This CCF addresses the preparation and execution of tasks necessary to integrate the fire support detailed in the OPORD. The CCF integrates CCF 7-14 in support of maneuver commander's concept and intent.
- IV. Air Defense BOS The means and measures organic or assigned to the maneuver commander which when employed successfully will nullify or reduce the effectiveness of attack by hostile aircraft or missiles after they are airborne.
 - CCF (16) Take Active Air Defense Measures Application of firepower to
 destroy enemy air targets. This CCF addresses the coordinating tasks which enable the
 maneuver commander to successfully employ any attached or assigned air defense
 weapons system as well as the tasks necessary to employ all organic weapons systems
 against enemy air targets. This CCF addresses:
 - a. Employment of Air Defense Artillery guns and missiles.
 - b. Employment of maneuver unit weapons systems such as small arms, automatic weapons, BFV 25 mm and TOW missiles, tank main gun against enemy air.
 - c. Airspace management.
 - d. Early warning.
 - e. Sustainment.
 - 2. **CCF (17) Take Passive Air Defense Measures** The protection of the maneuver force from enemy air by means other than weapons. This CCF will focus on the preparation and execution phases of the battle. This CCF addresses:
 - a. Early warning.
 - b. Dispersion.
 - c. Cover and concealment.
 - d. Air watch.
 - e. Deception.
- V. Command and Control BOS The way and means a maneuver commander exercises authority and direction over organic and assigned combat power in the accomplishment of the mission.

August 29, 1993 5

- 1. **CCF (18) Plan for Combat Operations** The integration of all members of the combined arms team in the coordinated development of the maneuver unit Operations Order which will guide the activities of the combined arms team in conducting combat operations to accomplish assigned missions. The product/outcome of this CCF is a briefed, understood OPORD. This CCF addresses:
 - a. Receipt and analysis of higher HQ OPORD.
 - b. Issuance of Warning Order.
 - c. Restated mission statement.
 - d. Commander's estimate process/troop leading procedures.
 - e. Commander's guidance.
 - f. Mission analysis (includes course of action development).
 - g. Decision brief to commander.
 - h. Development of a synchronized OPORD.
 - i. Reproduction and distribution of OPORD to all participants.
 - j. Briefing of OPORD; understanding of order by participants.
 - k. FRAGO planning and issue.
- 2. CCF (19) Direct and Lead Unit during Preparation for the Battle The ways and means to prepare combined arms task force for the battle so that the combined arms task force is ready to support the maneuver commander's concept and intent. This CCF addresses:
 - a. Commander's activities.
 - b. Communicating information.
 - c. Briefbacks and backbriefs.
 - d. Rehearsals.
 - e. Management of the means of communicating information.
 - f. Maintaining and updating information and force status.
 - g. Managing information distribution.
 - h. Decisions to act or change ongoing actions.
 - i. Confirming IPB through the reconnaissance effort.
 - j. Determining actions to implement decisions.
 - k. Providing command presence.
 - 1. Maintaining unit discipline.
 - m. Synchronizing tactical operations (e.g., execution matrix DST).
 - n. TOC operations (e.g., staff integration and battle tracking).
 - o. Continuity of command.
 - p. Second in command (2IC responsibilities).
 - q. Continuous and sustained operations.
 - r. Communications (e.g., planning, installation and operation of system, management, site selection).
- 3. **CCF (20) Direct and Lead Units in Execution of Battle** The ways and means to command and control in the combined arms task force execution of the battle plan (engaging the enemy in battle) to accomplish the maneuver commander's concept and intent. This CCF addresses:
 - a. Directing the conduct of the battle.
 - b. Issue orders.
 - c. Command presence.
 - d. Information distribution.
 - e. Decide on need for action or change.
 - f. Maintaining unit discipline.
 - g. Synchronizing tactical operations.
 - h. TOC operations (includes CP displacement, security, survivability).

- i. Continuity of command (e.g., C2 redundancy).
- j. Second in command (2IC) responsibilities.
- k. Continuous and sustained operations.
- Consolidation and reorganization.
- VI. **Mobility and Survivability BOS**—The ways and means of the force that permit freedom of movement, relative to the enemy, while retaining the task force ability to fulfill its primary mission as well as the measures the force takes to remain viable and functional by protection from the effects of enemy weapons systems and natural occurrences.
 - 1. **CCF (21) Overcome Obstacles** Enabling the maneuver force to maintain its mobility by removing or clearing/reducing natural and man-made obstacles. This CCF will initiate after receipt of the OPORD and address subordinate echelon planning as well as task force preparation and execution tasks necessary to achieve the maneuver commander's concept and intent. This CCF addresses:
 - Breach obstacle. Clearing a path or lane for personnel and equipment through a battlefield obstacle.
 - b. Cross gaps. Passing through or over any battlefield terrain feature, wet or dry, that is too wide to be overcome by organic/self bridging.
 - 2. **CCF (22) Enhance movement** Provision of adequate mobility for the maneuver unit in its area of operations. This CCF addresses:
 - a. Construction and repair of combat roads and trails.
 - b. Construction or repair of forward airfields.
 - c. Facilitating movement on routes. (This includes control of road traffic and control of refugees and stragglers.)
 - d. Tracking status of routes.
 - e. Host nation support.
 - 3. **CCF (23) Provide Countermobility** Delaying, channeling, or stopping offensive movement by the enemy consistent with the commander's concept and intent by enhancing the effectiveness of friendly direct and indirect weapons systems. This **CCF** addresses:
 - a. Emplacement of mines and complex obstacles.
 - b. Digging tank ditches.
 - c. Creation of road craters with explosives.
 - d. Terrain enhancement.
 - 4. **CCF (24) Enhance Physical Protection** Providing protection of friendly forces on the battlefield by enhancing the physical protection of personnel, equipment and weapons systems, and supplies. This CCF addresses:
 - a. Construction of fighting positions.
 - b. Preparation of protective positions.
 - Employment of protective equipment.
 - 5. CCF (25) Provide Operations Security Denying information to the enemy about friendly capabilities and intentions by identifying, controlling, and protecting indicators associated with planning and conducting military operations. This CCF addresses:

- a. Analysis to determine key assets and threats to them.
- b. Cover and concealment.
- c. Camouflage.
- d. Noise and light discipline.
- e. Counter reconnaissance.
- f. Smoke/obscurants.
- g. Physical security measures.
- h. Signal security.
- i. Electronic security.
- 6. **CCF (26) Conduct Deception Operations** Taking actions to mask the real objectives of tactical operations in order to delay effective enemy reaction. This CCF addresses:
 - a. Physical deception.
 - b. Electronic deception.
- 7. **CCF (27) Provide Decontamination** Making any person, object or area safe by absorbing, destroying, neutralizing, making harmless or removing chemical or biological agents, or by removing radioactive material. This CCF addresses:
 - a. Decontamination of individual soldiers and equipment.
 - b. Decontamination of weapon systems and supplies.
 - c. Hasty and deliberate decontamination.
- VII. **Combat Service Support BOS**—The support, assistance and service provided to sustain forces, primarily in the area of logistics, personnel services and health services.
 - 1. **CCF (28) Provide Transport Services** Providing or coordinating for transportation which will assure sustainment support operations in support of the maneuver commander. Upon receipt of an OPORD, this CCF addresses preparation and execution tasks necessary to achieve transportation support of the maneuver force. This CCF addresses:
 - a. Movement of cargo, equipment and personnel by surface or air.
 - b. Loading, transloading and unloading material and supplies.
 - 2. **CCF (29) Conduct Supply Operations** Providing the items necessary to equip, maintain and operate the force during the preparation and execution phases of the battle. This CCF addresses:
 - a. Requesting, receiving, procuring, storing, protecting, relocating and issuing supplies to the specific elements of the force.
 - b. Providing munitions to weapons systems.
 - c. Providing fuel and petroleum products to equipment and weapons systems.
 - d. Reporting status.
 - 3. **CCF (30) Provide Personnel Services** Management and execution of all personnel-related matters to sustain the force. This CCF addresses:
 - Personnel Administrative Services.
 - 1) Replacement, casualty reporting.
 - 2) Awards and decorations.

- 3) Postal Operations.
- 4) Promotions, reductions.
- b. Financial services.
- c. Unit Ministry team.
- d. Legal.
- e. Public Affairs.
- f. Reporting personnel status.
- g. Preservation of the force through safety.
- h. Management of stress.
- 4. CCF (31) Maintain Weapons Systems and Equipment Preservation and repair of weapons systems and equipment. This CCF includes the provision of repair parts and end items to all members of the combined arms team before, during and after the battle. Included also is doctrinal echeloning of maintenance (organization, DS, GS). This CCF addresses:
 - a. Preventative Maintenance.
 - b. Recovery.
 - c. Diagnosis, substitution, exchange, repair and return of equipment and weapons systems to the combined arms force.
 - d. Reporting status.
- CCF (32) Provide Health Services Performance, provision or arrangement for health services regardless of location, to promote, improve, conserve or restore the mental or physical well-being of individuals or groups. This CCF addresses
 - a. Preventive medicine.
 - b. Field sanitation.
- 6. **CCF (33) Treat and Evacuate Battlefield Casualties** Application of medical procedures on battlefield casualties beginning with "buddy aid" through trained medical personnel. The CCF includes movement of casualties from the forward edge of the battlefield back to division-level medical facilities. This CCF addresses:
 - a. Triage of battlefield casualties.
 - b. Treatment and movement of casualties to rear (medevac).
 - 1) Identification of levels of care and locations.
 - 2) Synchronization and coordination of movement of medical facilities to ensure continuity of care.
 - 3) Establishment and maintenance of communications with redundant means.
 - 4) Rehearsals.
 - 5) Resupply.
 - c. Evacuation:
 - 1) Ground ambulance.
 - 2) Aero medevac.
 - 3) Non-standard evacuation.
 - d. Handling and processing the remains of soldiers who have died of wounds.
 - e. Reporting status.
- 7. CCF (34) Conduct Enemy Prisoners of War (EPW) Operations The collection, processing, evacuation and safeguarding of enemy prisoners of war. This CCF addresses:
 - Collecting and evacuating EPW.
 - b. Searching, segregating, safeguarding, silencing, and rapid rearward movement of EPW.

- 8. **CCF (35) Conduct Law and Order Operations** Enforcement of laws and regulations and maintenance of units and personnel discipline.
- 9. **CCF (36) Conduct Civil Affairs Operations** Conduct of those phases of the activities of a tactical commander which embrace the relationship between the military forces and civil authorities, and the citizens in a friendly or occupied country or area when U.S. military forces are present.
- 10. **CCF (37) Provide Sustainment Engineering** The repair and construction of facilities and lines of communication. This CCF addresses:
 - Rear area restoration.
 - b. Construction and maintenance of lines of communication (roads, railroads, ports, airfields).
 - c. Construction support:
 - 1) Marshaling, distribution and storage facilities.
 - 2) Pipelines.
 - 3) Fixed facilities.
 - 4) Drill wells.
 - 5) Dismantlement of fortifications.
- 11. **CCF (38) Evacuate Non-combatants from Area of Operations** The use of available military and host-nation resources for the evacuation of US forces, dependents, US government civilian employees, and private citizens (US and other). This CCF addresses:
 - a. Medical support.
 - b. Transportation.
 - c. Security.
 - d. Preparation of temporary shelters.
 - e. Operation of clothing exchange facilities.
 - f. Operation of bathing facilities.
 - g. Graves registration.
 - h. Laundry.
 - i. Feeding.
- 12. **CCF (39) Provide Field Services** Performance of service logistics functions by and for Army elements in the field. This CCF addresses:
 - a. Clothing exchange.
 - b. Bathing facilities.
 - c. Graves registration.
 - d. Laundry and clothes renovation.
 - e. Bakeries.
 - f. Feeding (rations supply, kitchens).
 - g. Salvage.

OUTCOMES AND PURPOSE OF CCF 7

OUTCOMES

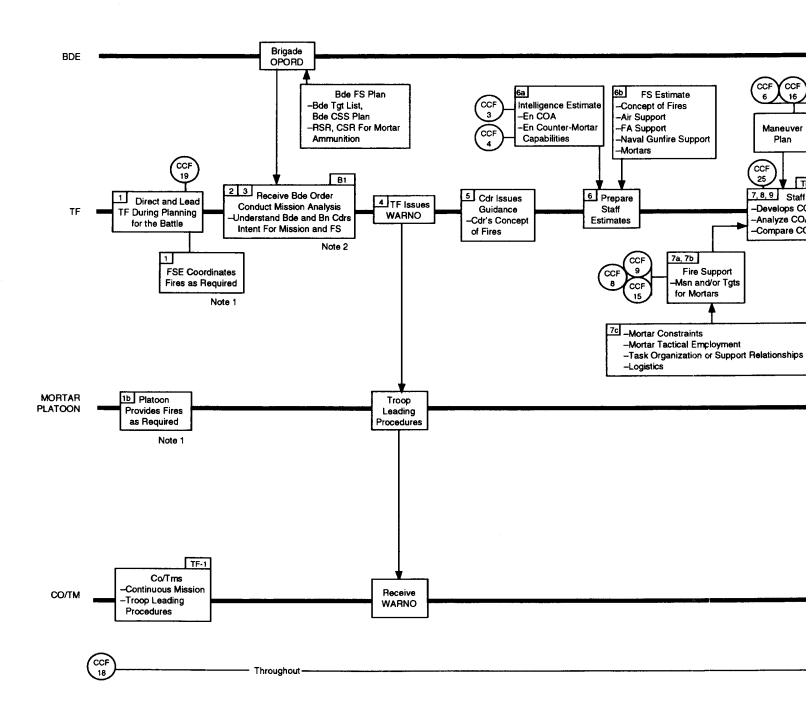
- 1. The TF FS plan incorporates the use of mortars in support of TF and team objectives.
- 2. The mortar platoon's movements and fires are part of a comprehensive plan that incorporates mortar fires with the TF's scheme of maneuver.
- 3. Support or command relationships based upon targets and mission are established for the mortar platoon.
- Coordination between the mortar platoon, TF FSE, and the companies is continuous. Fires are coordinated and executed in a manner that supports the TF plan.

PURPOSE

The timely employment of mortar fires, by the task force and its subordinate units, on the enemy or terrain in support of the commander's concept and intent.



TASK FLOW PLAN

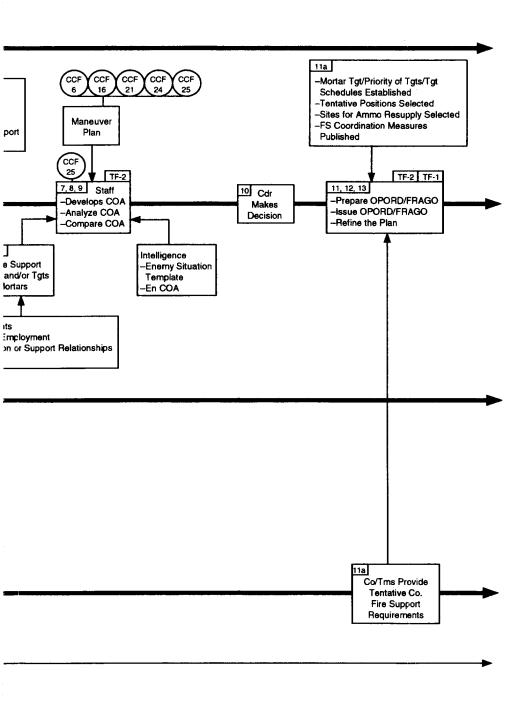


Note 1: Continues throughout the Plan, Prepare, and Execute sequence.

Note 2: Mortar Ptt Ldr assists FSO and S3 in planning for use of mortars.

CCF (outside) Input or Output (inside) Task



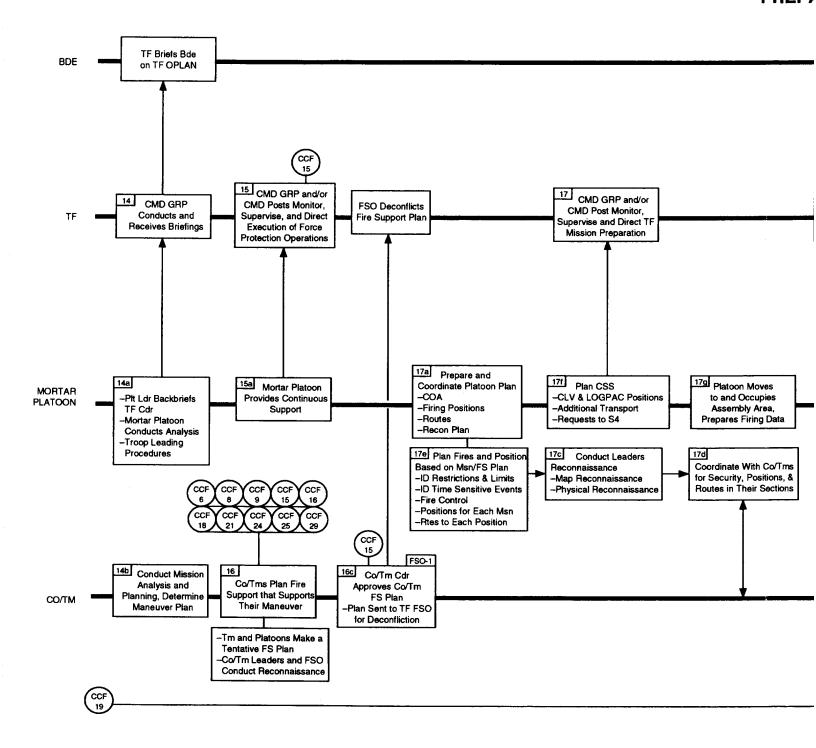


are, and Execute sequence.

planning for use of mortars.



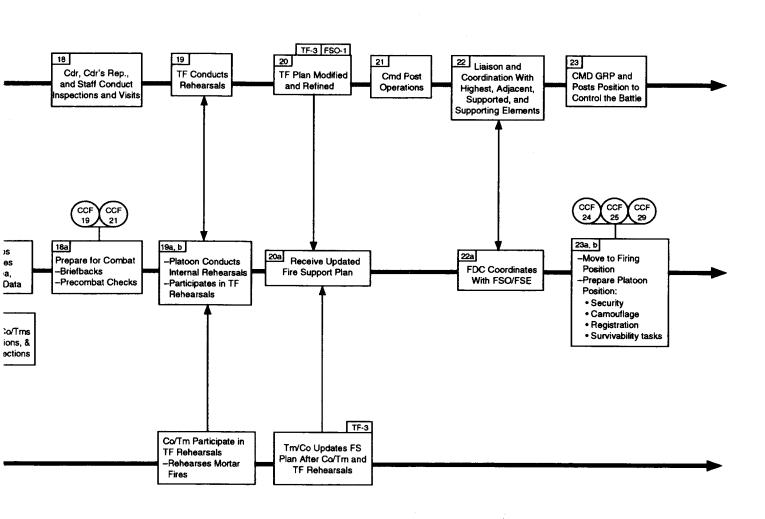
TASK F



CCF (outside) Input or Output (inside) Task



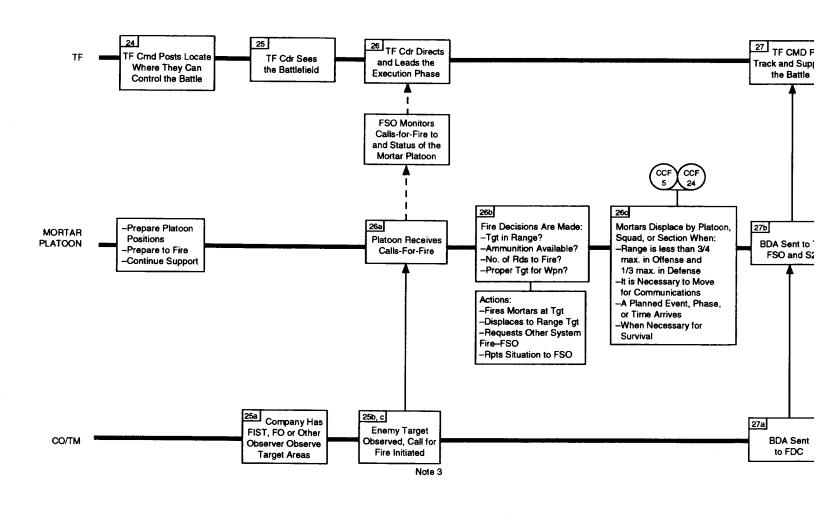
ASK FLOW PREPARE





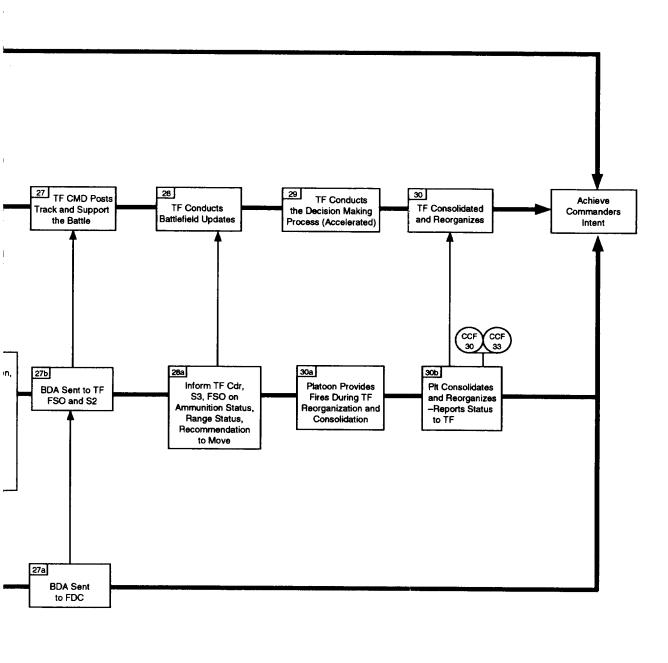
TASK FLOW EXECUTE







K FLOW ECUTE



TF FSO, or directly to the Mortar Platoon. ortar Platoon.

OTHER CCF WHICH INTERACT WITH CCF 7

CCF # & TITLE		LOGIC	
CCF 2	Collect Information	Mortar platoon collects BDA from TF observers and reports the information to the TF headquarters	
CCF 3	Process Information	Fire support planners are integrated into intelligence information processing system to refine and modify the mortar fire plan	
CCF 4	Disseminate Intelligence	Updated enemy situation analyzed to modify and refine mortar fire plan and provide responsive fires as needed	
CCF 5	Conduct Tactical Movement	Mortar fires are integrated and utilized to support TF movement; fire support assets are positioned to call for, process, and control mortar fires	
CCF 6	Engage Enemy with Direct Fire	Mortars are positioned and integrated to provide, process, and control mortar fires	
CCF 9	Employ Close Air Support	Mortar fires and assets are employed for SEAD operations in support of air-ground attack	
CCF 15	Coordinate, Synchronize, and Integrate Fire Support	The TF mortar fires are integrated to compensate for or enhance indirect fires	
CCF 16	Take Active Air Defense Measures	Mortars are fired and positioned to fire on known or suspected potential enemy attack helicopter position	
CCF 18	Plan for Combat Operations	Integrate fire support assets and fires to support the commander's intent and scheme of maneuver	
CCF 19	Direct and Lead Units During Preparation for Battle	The TF mortar assets in support of the TF are positioned and rehearsed; TF fire support plan is modified and refined based on rehearsals, intelligence, and changes to the maneuver plan; mortars and other FS assets support security operations	
CCF 20	Direct and Lead Units in Execution of Battle	The TF mortar assets and other FS are integrated into the fight through positive command and control	
CCF 21	Overcome Obstacles	Mortars and observers are positioned to provide and control fires used to obscure TF breaching activities and against enemy position or forces securing obstacles for the TF	

16

CCF # & TITLE		LOGIC
CCF 24	Enhance Physical Security	Requirements for TF mortars are included in the planning and construction of defensive positions
CCF 25	Provide Operations Security	Mortars and observers are provided to support security operations; positioning of mortar platoon denies the enemy intelligence on friendly plans and intentions
CCF 29	Conduct Supply Operations	Continuous responsive resupply of TF controlled fire support assets; support of RACO
CCF 30	Provide Personnel Services	Fill shortages of trained key fire support personnel losses (FSO, FIST, FDC)
CCF 31	Maintain Weapons Systems and Equipment	Repair/replace fire support specific mission essential equipment (Mortars, carriers, communications equipment, MBCs, etc.)
CCF 33	Treat and Evacuate Battlefield Casualties	Support of fire support personnel not habitually provided with attached medical assets

CCF 7

KEY PARTICIPANTS BY TASK

	TASKS	KEY PARTICIPANTS
1.	Direct and lead task force during planning for the battle.	TF Commander, S3, FSO, Mortar Plt, Scout Plt, Security Element
2.	Receive order from higher headquarters.	TF Commander, S3, FSO
3.	Conduct mission analysis	TF Commander, S3, FSO, FSE, Mortar Plt Ldr, Co CDRs, Co FSO
4.	Issue the warning order	S3, Companies, Mortar Plt
5.	Commander issues guidance.	TF Commander, S3, S4, FSO, FSE, Mortar Plt Ldr, Co CDRs, HHC CDR, Co FSO
6.	Prepare staff estimates	TF XO, S2, S3, FSO, Mortar Plt Ldr
7.	Staff develops course of action	TF Commander, XO, S2, S3, S4, FSO, FSE, Mortar Plt Ldr
8.	Staff/CDR analyze course of action	TF Commander, XO, S2, S3, S4, FSO, Mortar Plt Ldr, Co CDRs
9.	Staff compares courses of action	TF Commander, XO, S2, S3, S4, FSO, Mortar Plt Ldr, Co CDRs
10.	Commander announces decision	TF Commander, XO, S2, S3, S4, FSO, Mortar Plt Ldr, Co CDRs
11.	Staff prepares OPORD/FRAGO	S3, S4, FSO, FSE, Mortar Plt Ldr, Co CDRs, Mortar Plt
12.	Issue the OPORD/FRAGO	TF Commander, XO, FSO, Staff, Subordinate CDRs
13.	Refine the plan	TF Commander, XO, FSO, Staff, Mortar Plt Ldr
14.	Command group conducts and receives briefings	TF Commander, FSO, Mortar Plt Ldr, Co CDRs, Plt Ldr, Co FSO
15.	Command group and/or command posts monitor, supervise, and direct execution of force protection operations and activities.	S3, FSE, Mortar Plt, Scout Plt, Security Element

	TASKS	KEY PARTICIPANTS
16.	Companies and platoons plan fire support that supports their maneuver	Co CDRs, Plt Ldr, Co FSO, FIST, Mortar Plt Ldr, TF FSO, FSE, Scout Plt Ldr
17.	Command group and/or command posts monitor, supervise, and direct Task force mission preparation	TF CDR, XO, CSM, Mortar Plt Ldr, HHC CDR, HHC 1SG, Mortar Plt, S4
18.	Commander, commander's representatives, and staff conduct inspections and visits	TF CDR, XO, CSM, Mortar Plt Ldr, Mortar Plt
19.	Task Force conducts rehearsals.	All Combined Arms Team
20.	Task force plan modified and refined	TF Commander, S2, S3, FSO, FSE, Mortar Plt Ldr, Co CDRs, Plt Ldrs, Co FSO, FIST
21.	Command post (TAC, TOC, CTCP) operations	TF XO, Staff, HHC CDR
22.	Liaison and coordination with higher, adjacent, supported, and supporting elements.	Mortar Plt, Co/Tms
23.	Command group and command posts position to control the battle.	TF CDR, XO, Staff, Mortar Plt Ldr, Mortar Plt
24.	Task force command posts locate where they can control the battle.	TF CDR, XO, Staff
25.	Task force commander sees the battlefield.	CDR, Staff, Co/Tms, Mortar Plt, Scout Plt
26.	Task force commander directs and leads the execution phase	TF Commander, S2, S3, FSO, FSE, Mortar Plt Ldr, Co CDRs, HHC 1SG, Co FSO, FIST
27.	Task force command posts track and support the battle	TF XO, Staff, Mortar Plt Ldr
28.	Task force conducts battlefield update	TF Commander, S3, FSO, FSE, Mortar Plt Ldr
29.	Task force conducts the decision making process (accelerated)	TF CDR, XO, Staff, FSO, Mortar Plt Ldr
30.	Task force consolidates and reorganizes	All Combined Arms Team

KEY INPUTS AND OUTPUTS TO CCF 7 (W/ CRITICAL INFORMATION)

KEY INPUTS

B-1 Brigade OPORD

- a) Brigade Commander's guidance and intent for fire support
- b) Fire Support Plan from Paragraph 3 (Execution) of OPORD
- c) Scheme of maneuver from Paragraph 3 (Execution) of OPORD
- d) Brigade maneuver graphics/operations overlay
- e) Brigade Fire Support Annex
 - 1) Priority of fires
 - 2) Target list
 - 3) Artillery task organization
 - 4) Fire Support Execution Matrix
 - 5) High Payoff Target List
 - 6) Attack guidance
 - 7) Target solution criteria
 - 8) Fire support coordination measures
 - 9) Quick Fire plan
 - 10) COLT employment plan
- f) Brigade service support annex.
 - 1) RSR and CSR for mortar ammunition, by type

TF-1 Tactical Standing Operating Procedures (TSOP)

- a) TF movement formations and techniques
- b) Pre-combat checklist
- c) TF obstacle operations
- d) FO and FSO duties, responsibilities, and operations

TF-2 Task Force OPORD

- a) TF Commander's guidance and intent for fire support
- b) Fire Support Plan from Paragraph 3 (Execution) of OPORD
- c) Scheme of maneuver from Paragraph 3 (Execution) of OPORD
- d) TF maneuver graphics/operations overlay

- e) Fire Support Annex
 - Priority of fires
 - 2) Target list
 - 3) Mortar platoon task organization
 - 4) Fire Support Execution Matrix
 - 5) Priority target list
 - 6) 7) Attack guidance
 - Target solution criteria
 - 8) Schedule of fires
 - 9) Fire support coordination measures
 - 10) Ouick Fire plan
 - Clearance of fires plan
- f) Decision Support Template (DST)
- g) Synchronization Matrix
- h) Engineer Annex
 - Prioritization of obstacles 1)
 - 2) 3) Brigade directed obstacles
 - Responsibility for emplaced obstacles
- Intelligence Annex
 - Reconnaissance and Surveillance Plan 1)
 - 2) NAI's and TAI's
- Air Defense Artillery Annex
 - **SEAD Requirements** 1)
 - 2) CAS integration to deconflict indirect fires

FSO-1 Subordinate Unit FSO and FO Artillery Fires Refinement

- a) Subordinate unit target lists refinements
- b) Subordinate unit direct fire plans
- c) Completed obstacle locations
- d) Smoke and illumination requirements

KEY OUTPUTS

TF-3 Modified/Refined Artillery Fires Support Plan

- a) Updated TF Fire Support Plan
 - Priority of fires
 - 1) 2) 3) 4) 5) 6) 7) 8) Target list
 - Mortar platoon task organization
 - Fire Support Execution Matrix

 - High payoff target list Attack guidance Target solution criteria
 - Schedule of fires
 - Fire support coordination measures Quick Fire plan 9)
 - 10)
 - Clearance of fires plan 11)
- b) Updated DST
- c) FO/FIST positioning plan updated

TASK LIST SUMMARY FOR CCF 7

See task analysis of interacting CCFs for detailed analysis of related planning, preparation and execution tasks. See CCF 18, 19, and 20 tasks for they have been integrated into this task analysis to reflect the command and control aspects of Employ Mortars.

PLANNING

- 1. Direct and lead task force during planning for the battle (ARTEP 7-90-MTP, Task 7-3/4-1227, 7-4-1211 to 14, 7-3/4-1215 to 26)
- 2. Receive order from higher headquarters (FM 101-5, FM 71-123)
- 3. **Conduct mission analysis** (ARTEP 71-2-MTP, Task 7-1-3901/2; FM 101-5, Chap. 4)
- 4. **Issue the warning order** (ARTEP 71-2-MTP, Task 7-1-3901/2; FM 101-5, Chap. 4)
- 5. Commander Issues guidance (FM 101-5, Chap. 4)
- 6. **Prepare staff estimates** (ARTEP 71-2-MTP, Task 7-1-3901/3; FM 101-5)
- 7. Staff develops course of action (ARTEP 71-2-MTP, Task 7-1-3901/4, 3907; FM 101-5, Chap. 4)
- 8. Staff/CDR analyze course of action (ARTEP 71-2-MTP, Task 7-1-3901/4; FM 101-5, Chap. 4)
- 9. Staff compares courses of action (FM 101-5, Chap. 4)
- 10. Commander announces decision (FM 101-5, Chap. 4)
- 11. **Staff prepares OPORD/FRAGO** (ARTEP 71-2-MTP, Task 7-1-3001, 3901/5, 3907; FM 101-5, Chap. 4)
- 12. **Issue the OPORD/FRAGO** (ARTEP 71-2-MTP, Task 7-1-3901/7; FM 101-5, Chap. 4)
- 13. **Refine the plan** (ARTEP 71-2-MTP, Task 7-1-3901/8; FM 101-5, Chap. 4)

PREPARATION

- 14. Command group conducts and receives briefings (ARTEP 7-90-MTP, Task 7-3/4-1237, 1227; ARTEP 71-2-MTP, Task 7-1-3903/3; FM 71-2, Chap 2; FM 101-5, Chap 4)
- 15. Command group and/or command posts monitor, supervise, and direct execution of force protection operations and activities (ARTEP 7-90-MTP, Task 7-3/4-1237,

- 7-3/4-1227, 7-4-1211 to 14, 7-3/4-1215 to 26; ARTEP 71-2-MTP, Task 7-1-3028/3, 3904/6, 3905/2, and 3905/4)
- 16. Companies and platoons plan fire support that supports their maneuver (ARTEP 71-2-MTP, Task 7-1-3907; ARTEP 71-1-MTP, Task 17-2-0401, 0402)
- 17. Command group and/or command posts monitor, supervise, and direct Task force mission preparation (ARTEP 7-90-MTP, Task 7-3/4-1210, 7-4-1211, 7-3/4-1227, 7-3/4-1215 to 26, 7-3/4-1228. 7-3/4-1237, 7-3/4-1233; ARTEP 71-2-MTP, Task 7-1-3001/5, 3901/9, 3901/10, 3904/12; FM 71-123, Chap 3)
- 18. Commander, commander's representatives, and staff conduct inspections and visits (ARTEP 7-90-MTP, Task 7-3/4-1237, 7-3/4-1235, 7-3/4-1233; ARTEP 71-2-MTP, Task 7-1-3903/2; FM 71-2, Chap 2)
- 19. **Task Force conducts rehearsals** (ARTEP 7-90-MTP, Task 7-3/4-1237; FM 71-2, Chap 2; FM 71-123, Chap 2; FM 101-5, Appendix M)
- 20. Task force plan modified and refined (ARTEP 7-90-MTP, Task 7-3/4-1237; ARTEP 71-2-MTP, Task 7-1-3901/8, 3904/12)
- 21. Command post (TAC, TOC, CTCP) operations (ARTEP 71-2-MTP, Task 7-1-3401, 3035, 3036, 3902/9, 3913)
- 22. Liaison and coordination with higher, adjacent, supported, and supporting elements (ARTEP 7-90-MTP, Task 7-3/4-1237, 7-3/4-1227; ARTEP 71-2-MTP, Task 7-1-3003/2, 3010/2, 3016/1, 3902/11)
- 23. Command group and command posts position to control the battle (ARTEP 7-90-MTP, Task 7-3/4-1237, 7-3/4-1228, 7-3/4-1203; ARTEP 71-2-MTP, Task 7-1-3901/11, 3902/11, and 3903/1)

EXECUTION

- 24. Task force command posts locate where they can control the battle (ARTEP 71-2-MTP, Task 7-1-3902)
- 25. Task force commander sees the battlefield (ARTEP 71-2-MTP, Task 7-1-3901/11; FM 71-100, Chap. 1)
- 26. Task force commander directs and leads the execution phase (ARTEP 7-90-MTP, Task 7-3/4-1237, 7-4-1211 to 14, 7-3/4-1215 to 26; ARTEP 71-2-MTP, Task 7-1-3901/12; FM 71-100, Chap. 1)
- 27. Task force command posts track and support the battle (ARTEP 71-2-MTP, Task 7-1-3903/3, 3904/14; FM 71-123, Chap. 1)

- 28. **Task force conducts battlefield update (METT-T based)** (ARTEP 7-90-MTP, Task 7-3/4-1237; ARTEP 71-2-MTP, Task 7-1-3902/3, 3906/1, 3913/5)
- 29. Task force conducts the decision making process (accelerated) (FM 71-123, Chap. 1)
- 30. **Task force consolidates and reorganizes** (ARTEP 7-90-MTP, Task 7-3/4-1227, 7-4-1211 to 14, 7-3/4-1215 to 26, 7-3/4-1237, 7-3/4-1236; ARTEP 71-2-MTP, Task 7-1-3022, 3023)

PLANNING TASK LIST — EMPLOY MORTARS

CCF 18 (Plan for Combat Operations) tasks have been integrated into this task analysis because it reflects the command and control aspects of the planning process. The 13 CCF 18 planning tasks are numbered 1 to 13 in this analysis of planning tasks for CCF 7. Subtasks included under each of the 13 tasks, are those actions or events which are critical to CCF 7, Employ Mortars.

- 1. **Direct and lead task force during planning for the battle** (ARTEP 7-90-MTP, Task 7-3/4-1227, 7-4-1211 to 14, 7-3/4-1215 to 26)
 - a. FSO and FSE are prepared to process and control mortar fires, mortar platoon is positioned to answer calls for fire in support of TF security operations, reconnaissance, and counter-reconnaissance.
 - b. Mortar platoon provides continuous mortar support for on-going operations.
 - c. See CCF 18, Task 1; CCF 19.
- 2. Receive order from higher headquarters (FM 101-5, FM 71-123)
 - a. See CCF 18, Task 2.
- 3. **Conduct mission analysis** (ARTEP 71-2-MTP, Task 7-1-3901/2; FM 101-5, Chap. 4)
 - a. Understand Commander's intent for FS.
 - b. See CCF 18, Task 3.
- 4. **Issue the warning order** (ARTEP 71-2-MTP, Task 7-1-3901/2; FM 101-5, Chap. 4)
 - a. Issue warning order to HHC, warning order to mortar platoon.
 - b. See CCF 18, Task 4.
- 5. Commander issues guidance (FM 101-5, Chap. 4)
 - a. Commander gives his concept of fires.
 - b. See CCF 18, Task 5.
- 6. **Prepare staff estimates** (ARTEP 71-2-MTP, Task 7-1-3901/3; FM 101-5)
 - a. Intelligence estimate.
 - 1) Enemy courses of action.
 - 2) Enemy positions.
 - 3) Enemy lines of communication (LOCs).

- 4) Enemy dismounted avenues of approach
- 5) Enemy mounted avenues of approach.
- 6) Enemy counter-mortar capabilities.
- b. Estimate fire support requirements addressed in TF commander's concept of fires.
- c. See CCF 3, Task 6; CCF 4, Task 6; CCF 18, Task 6.
- 7. **Staff develops course of action** (ARTEP 71-2-MTP, Task 7-1-3901/4, 3907; FM 101-5, Chap. 4).
 - a. Plan FS for each COA.
 - 1) Determine fire support requirements to support each COA.
 - 2) Mission and/or targets, and priorities for battalion mortars for each mission.
 - a) Supply requirements (CL V) for each COA.
 - b) Task organization.
 - c) General location of mortar platoon.
 - b. Develop a tentative FS plan that supports the TF's maneuver.
 - c. Determine what FS system should be used for each target.
 - 1) Use mortars as part of FS plan.
 - a) Identify constraints and limitations.
 - b) Fix responsibilities.
 - c) TF Cdr makes a tactical employment decision:
 - Mission.
 - Priority of fires.
 - General locations of mortar platoon.
 - Priority targets.
 - d) TF Cdr makes task organization decision:
 - Attachments and detachments.
 - Command and support relationships.
 - Communications.
 - e) Logistical support decision:
 - Types and mix of ammunition.
 - Priority of transportation.
 - Priority of maintenance support.

Note: This analysis assumes that the commander has decided to keep the mortar platoon under TF control using either specified missions for the mortar platoon or using the mortar platoon in GS to the TF with a priority of fires for each phase. If the mortar platoon or a mortar section is attached to a maneuver company/team, the company/team commander, FIST, and the mortar platoon leader will coordinate and prepare a fire support plan that includes the mortar platoon.

- d. See CCF 6, Task 7; CCF 9, Task 7; CCF 15, Task 7; CCF 16, Task 7; CCF 18, Task 7; CCF 21, Task 7; CCF 24, Task 7; CCF 25, Task 7; CCF 29, Task 7.
- 8. Staff/CDR analyze course of action (ARTEP 71-2-MTP, Task 7-1-3901/4; FM 101-5, Chap. 4).
 - a. See CCF 18, Task 8.
- 9. Staff compares courses of action (FM 101-5, Chap. 4).
 - a. See CCF 18, Task 9.
- 10. Commander announces decision (FM 101-5, Chap. 4).
 - a. See CCF 18, Task 10.
- 11. **Staff prepares OPORD/FRAGO** (ARTEP 71-2-MTP, Task 7-1-3001, 3901/5, 3907; FM 101-5, Chap. 4).
 - a. FS Plan preparation.
 - 1) Input received from company commanders on possible targets for mortars.
 - 2) Mortar targets selected, missions and/or priority targets and fires scheduled for each phase.
 - 3) Mortar firing positions selected for each phase.
 - 4) Ammunition sites for prepositioning selected.
 - 5) FS coordination measures published.
 - 6) Responsibilities established for observing targets and executing fires.
 - b. See CCF 18, Task 11.
- 12. **Issue the OPORD/FRAGO** (ARTEP 71-2-MTP, Task 7-1-3901/7; FM 101-5, Chap. 4).
 - a. See CCF 18, Task 12.
- 13. **Refine the plan** (ARTEP 71-2-MTP, Task 7-1-3901/8; FM 101-5, Chap. 4).
 - a. See CCF 18, Task 13.

PREPARATION TASK LIST — EMPLOY MORTARS

CCF 19, Direct and Lead Units During Preparation for Battle) tasks have been integrated into this task analysis because it reflects the command and control aspects of the preparation process. The nine CCF 19 preparation tasks are task numbers 14, 15, and 17 to 23 in this preparation task list. Subtasks included under each of the seven tasks reflect those actions or events which are critical to CCF 7, Employ Mortars. Task number 16 is a critical task that ties the company/team planning into the prepartion of the task force.

NOTE: Planning for the mortar platoon does not commence for the mortar platoon leader when he receives a TF OPORD. He has been involved with the FS planning at the TF FSE with the FSO. He is the primary advisor to the TF CDR, S3, and FSO on the employment of mortars. Thus, the mortar platoon leader is both a special staff officer and a platoon leader.

- 14. **Command group conducts and receives briefings** (ARTEP 7-90-MTP, Task 7-3/4-1237, 7-3/4-1227; ARTEP 71-2-MTP, Task 7-1-3903/2; FM 71-2, Chap 2; FM 101-5, Chap 4).
 - a. Conduct troop leading procedures.
 - 1) Perform mission analysis.
 - 2) Set time schedule.
 - 3) Issue warning order to mortar platoon.
 - b. Companies and platoons conduct mission analysis and planning, each determines their own fire support needs.
 - c. See CCF 19.
- 15. Command group and/or command posts monitor, supervise, and direct execution of force protection operations and activities (ARTEP 7-90-MTP, Task 7-3/4-1237, 7-3/4-1227, 7-4-1211 to 14, 7-3/4-1215 to 26; ARTEP 71-2-MTP, Task 7-1-3028/3, 3904/6, 3905/2, and 3905/4).
 - a. Mortar platoon provides continuous support, as required, for the task force.
 - b. See CCF 19.
- 16. Companies and platoons plan fire support that supports their maneuver (ARTEP 71-2-MTP, Task 7-1-3907; ARTEP 71-1-MTP, Task 17-2-0401, 0402).
 - a. Company/team commanders, platoon leaders and company FSO make a tentative fire support plan.
 - 1) Uses the TF commander's plans, guidance, and intent.
 - 2) Integrates the fires planned at TF.
 - 3) Plans for positioning of FIST to control planned TF fires within company sector or designates and positions other observers if FIST not available.
 - 4) Plans fires to augment the TF's and cover:

- a) Fires from LD/LC to beyond objective.
- b) Known or suspected enemy positions.
- c) Enemy mounted and dismounted avenues of approach.
- d) Critical targets that will deter the success of the company's maneuver if not fired upon.
- Plans for priority targets (if available). 5)
- Plans for movement of mortar platoon or section if attached to company.
- The company/team commander, platoon leaders, and company FSO conduct reconnaissance and plan fires.
- Company/team commander approves company fire support plan and execution matrix.
- d. Company/team FS plan sent to TF for approval and deconfliction by the FSO.
- See CCF 6; CCF 9; CCF 15; CCF 16; CCF 18; CCF 21; CCF 24; CCF 25.
- 17. Command group and/or command posts monitor, supervise, and direct Task force mission preparation (ARTEP 7-90-MTP, Task 7-3/4-1210, 7-4-1211, 7-3/4-1227, 7-3/4-1215 to 26, 7-3/4-1228, 7-3/4-1237, 7-3/4-1233; ARTEP 71-2-MTP, Task 7-1-3001/5, 3901/9, 3901/10, 3904/12; FM 71-123, Chap 3).
 - Mortar platoon prepares and coordinates a plan.
 - 1) Develops COAs.
 - 2) Positions.
 - 3) Routes.
 - Resupply points.
 - Makes a reconnaissance plan.
 - Conduct leaders' reconnaissance.
 - 1) Conduct map reconnaissance using OCOKA and considering:
 - a) Situational overlay with avenues of approach.
 - b) Operations overlay.c) A2C2 overlay.

 - d) Select mortar platoon positions/routes.
 - e) Estimate range restrictions.

Note: Planner must also consider subordinate unit plans and graphics and adjust plans as necessary.

- Conduct physical reconnaissance.
 - a) Confirm map information for positions.
 - b) Determine physical characteristics of roads and cross country routes.
 - c) Estimate time and distance between positions for displacement.
 - d) Evaluate cover, concealment, and dispersion for routes and positions.
 - e) Evaluate the effects of terrain and distance on communications and fires.

- Coordinate with companies for security, positions, and routes within their sectors, and mortar fires.
- e. Plan fires and displacement based on FS Plan and platoon missions.
 - 1) Identify restrictions and limitations.
 - 2) Identify time sensitive events/missions.
 - 3) Design fire control measures.
 - 4) Identify firing positions for each mission.
 - 5) Identify routes to new firing positions.
 - 6) Displacement timing.
 - 7) Technique of displacement (Platoon, Section, Squad).
- f. Plan combat service support.
 - Cl V resupply and LOGPAC positioning.
 - 2) Plan for necessary additional transportation requirements.
 - 3) Submit support requests to HHC and S4.
- g. Mortar platoon moves to and occupies assembly area, or continues support of on-going missions from present location.
- h. FDC computes firing data on the MBC or firing chart for each planned target, for each firing position.
 - 1) Positions of friendly units are plotted and entered into the MBC.
 - 2) Ammunition is allocated and prepared for missions.
 - 3) FDC is prepared to assume the duties of the FSE.
- i. See CCF 19.
- 18. Commander, commander's representatives, and staff conduct inspections and visits (ARTEP 7-90-MTP, Task 7-3/4-1237, 7-3/4-1235, 7-3/4-1233; ARTEP 71-2-MTP, Task 7-1-3903/2; FM 71-2, Chap 2).
 - a. Prepare for combat.
 - 1) Subordinate leaders briefback to mortar platoon leader to ensure understanding.
 - 2) Unit prepares all equipment and conducts precombat checks.
 - a) Platoon performs readiness, maintenance, and function checks on unit equipment.
 - b) Leaders conduct inspections.
 - c) Mortar platoon is mounted (ready to move) or in position, ready to fire.
 - d) Resupply food, ammunition, water, medical supplies, and POL as prescribed in the unit SOP.
 - b. See CCF 19; CCF 29; CCF 31.
- 19. **Task Force conducts rehearsals** (ARTEP 7-90-MTP, Task 7-3/4-1237; FM 71-2, Chap 2; FM 71-123, Chap 2; FM 101-5, Appendix M).

- a. Mortar platoon/sections conduct internal rehearsal.
 - 1) Displacements.
 - 2) Fires.
- b. Mortar platoon participates in TF rehearsals.
- c. See CCF 19.
- 20. **Task force plan modified and refined** (ARTEP 7-90-MTP, Task 7-3/4-1237; ARTEP 71-2-MTP, Task 7-1-3901/8, 3904/12).
 - a. Receive up-dated FS Plan from the FSE.
 - 1) Include targets for companies that have been deconflicted by the FSE.
 - 2) Consider any changes that are necessary to the platoon plan.

NOTE: This is an on-going process, as new missions and targets are developed by the TF and its subordinate elements, the mortar platoon leader must consider the changes necessary to provide continuous fire support.

- b. See CCF 19.
- 21. Command post (TAC, TOC, CTCP) operations (ARTEP 71-2-MTP, Task 7-1-3401, 3035, 3036, 3902/9, 3913).
 - a. See CCF 19.
- 22. Liaison and coordination with higher, adjacent, supported, and supporting elements (ARTEP 7-90-MTP, Task 7-3/4-1237, 7-3/4-1227; ARTEP 71-2-MTP, Task 7-1-3003/2, 3010/2, 3016/1, 3902/11).
 - a. FDC chief coordinates with FSO.
 - 1) Fire plans.
 - 2) Fire support coordination measures.
 - 3) Schedules of fires.
 - 4) Mortar positioning.
 - 5) Displacement timing.
 - 6) Ammunition mix, and on-hand.
 - 7) Scheme of maneuver.
 - b. Infantry support is coordinated and missions assigned.
 - c. See CCF 19.
- 23. Command group and command posts position to control the battle (ARTEP 7-90-MTP, Task 7-3/4-1237, 7-3/4-1228, 7-3/4-1203; ARTEP 71-2-MTP, Task 7-1-3901/11, 3902/11, and 3903/1).

- Move to firing positions.
 - Mortars laid IAW plan or SOP.
 - 2) Ammunition prepared.
- Prepare platoon position.

 - Camouflage and concealment. Wire communications established. 2) Wire commu
 3) Mortar pits d
 4) FDC dug-in.
 - Mortar pits dug.

 - 5) Ammunition dug-in.
 - 6) Prepare for limited visibility operations.7) Platoon registers and alines mortars.
- See CCF 19; CCF 24; CCF 25; CCF 29.

EXECUTION TASK LIST — EMPLOY MORTARS

CCF 20, Direct and Lead Units in Execution of Battle) tasks have been integrated into this task analysis because it reflects the command and control aspects of the execution process. The seven CCF 20 preparation tasks are numbered 24 to 30 in this preparation task list. Subtasks included under each of the seven tasks reflect those actions or events which are critical to CCF 7, Employ Mortars.

- 24. Task force command posts locate where they can control the battle (ARTEP 71-2-MTP, Task 7-1-3902).
 - See CCF 20.
- 25. Task force commander sees the battlefield (ARTEP 71-2-MTP, Task 7-1-3901/11; FM 71-100, Chap. 1).
 - a. FIST/FO/other observer, observes planned targets.
 - b. Enemy target observed.
 - c. Observer initiates a call-for-fire.
 - 1) Call to Co/Tm FSO (centrally controlled fires).
 - 2) Call to Bn FSO (centrally controlled fires).
 - 3) Call to the mortar platoon FDC (from either the observer or Co/Tm FSO/TF FSO.
 - d. See CCF 20.
- 26. Task force commander directs and leads the execution phase (ARTEP 7-90-MTP, Task 7-3/4-1237, 7-4-1211 to 14, 7-3/4-1215 to 26; ARTEP 71-2-MTP, Task 7-1-3901/12; FM 71-100, Chap. 1).
 - a. Receive calls for fire.
 - Process calls for fire.
 - 2) Calls for fire ordered by:
 - a) Target priority.
 - b) Unit priority.
 - b. Mortar platoon leader decides if the platoon can engage the target or not; if it can not:
 - 1) The mortar platoon leader reports the situation to the FSO.
 - The platoon moves to where it can engage the target or the FSO requests supporting artillery fires.
 - c. Mortar platoon displaces.

Note: Displacement of the mortar platoon is controlled by the TF commander. The mortar platoon leader keeps the TF commander informed (either directly or through the FSE) on the platoons situation (range, ammunition, communications available mortars) and

recommends when it is appropriate for the platoon to displace. Displacement may be directed by the DST and/or TF execution matrix.

- 1) Displacement timing.
 - a) Platoon displaces when its fires cannot reach beyond two-thirds its maximum range during the offense or one-third of the range in defense.
 - b) Platoon displaces when it can no longer communicate with the Main CP or the supported unit.
 - c) The platoon displaces when a preplanned event, phase, or time occurs.
 - d) The platoon displaces when the situation changes and it must move to survive or continue support. The platoon leader must keep the platoon in range and communicate with the supported units.
- 2) Displacement technique (Platoon, Section, Squad).
- d. FSO/FSE monitors calls-for-fire to the mortar platoon and their status.
- e. See CCF 20.
- 27. **Task force command posts track and support the battle** (ARTEP 71-2-MTP, Task 7-1-3903/3, 3904/14; FM 71-123, Chap. 1).
 - a. BDA sent to the mortar platoon FDC.
 - b. BDA sent to FSO/FSE, S2.
 - c. See CCF 2; CCF 20.
- 28. **Task force conducts battlefield update (METT-T based)** (ARTEP 7-90-MTP, Task 7-3/4-1237; ARTEP 71-2-MTP, Task 7-1-3902/3, 3906/1, 3913/5).
 - a. Inform TF CDR, S3, and/or FSE of changes in ammunition and platoon status.
 - b. See CCF 20.
- 29. Task force conducts the decision making process (accelerated) (FM 71-123, Chap. 1).
 - a. See CCF 20.
- 30. **Task force consolidates and reorganizes** (ARTEP 7-90-MTP, Task 7-3/4-1227, 7-4-1211 to 14, 7-3/4-1215 to 26, 7-3/4-1237, 7-3/4-1236; ARTEP 71-2-MTP, Task 7-1-3022, 3023).
 - a. Mortar platoon provides fires for TF during consolidation and reorganization.
 - b. The platoon consolidates and reorganizes.
 - 1) Reestablishes the chain-of-command.
 - 2) Establishes local security.

- 3) 4) 5) Redistributes ammunition and weapons.
 Provides first aid to casualties and evacuates them as needed.
 Reports status to TF.
- See CCF 20; CCF 30; CCF 33.

CALL LESSONS LEARNED RELEVANT TO CCF 7 EXTRACTS FROM LESSONS LEARNED BULLETINS

1. NTC Commanders Memorandum - Nov 85

Mortars are difficult to employ in a fast moving mech-armor environment due to their limited range. The mortar platoon leader must keep track of the battle, participate in decisions concerning his positioning, and sell his product.

Considering the impact that range has on the capability to both mass fires and support multiple companies, mortar employment should be kept as uncomplicated as possible. Often it helps to assign specific preplanned targets to the mortars. Also, attaching sections to lead companies can work well in offensive operations. Tight company commander control is recommended, e.g., "Stay one terrain feature behind; move when I move; shoot the targets I give you; and use direct lay whenever possible."

Mortar illumination should be planned for all night operations, even when the primary concept calls for no illumination. Plans need to delineate specific conditions which will trigger the use of illumination and who will make the decision. Even when gunners can acquire targets with night sights, leaders often need illumination to facilitate command and control and fire distribution. It is far more difficult that I realized to achieve effective illumination over the areas covered by modern direct fire weapons. Illumination assumptions upon which the overall concept of operations is based should be very conservative.

2. NTC Lessons Learned Bulletin – Feb 87

Two shortcomings in providing continuous mortar fire support are:

- a. Task force failure to practice ammunition resupply during home station training.
- b. Failure of resupply to keep pace with unit expenditures.

Mortar platoons are often requested by maneuver elements to fire "low payoff" targets, rapidly depleting their basic load. Mortar fires need to be cleared by the Mortar Platoon Leader, FSO, or the S3 to ensure rounds are allocated according to the commander's intent.

Many units expend large quantities of ammunition on suppressive fire. They call upon the mortars because they are a responsive and accurate means of fire. Units must guard against equating mortar fires with stopping or destroying enemy armor units. Suppressive fire is costly in terms of round expenditures. Suppressive fire should be employed only when it will provide results that compliment the overall task force battle plan. Instead of suppressive fire, units need to identify target areas where a minimum number of rounds are critical to accomplish the commander's intent.

Logistics planning should consider prestocking of ammunition to ensure resupply keeps pace with demand. This takes coordination between maneuver and logistics planners to ensure security of prestock locations and survivability of CSS vehicles conducting resupply operations far forward.

The provision of adequate fire support with limited basic load rounds requires coordination between the S3, FSO, S4 and Mortar Platoon Leader. They must ensure that the mortar platoon allocates their basic load of rounds to priority targets or they prestock so that other

targets can be shot on call. Mortar fires could make the difference between success and failure of the task force at the critical time and place and needs to be practiced during homestation training.

3. NTC Commander's Comments, The CS Team - May 87

The 4.2 inch mortars were often ineffective due to poor positioning by the FSO/Mortar Platoon Leader and under utilization by the FIST. Many times, the mortars were out of range of the enemy. On several occasions, the 4.2 mortar platoons were not given sufficient fire missions by the FIST. Procedures must be established to integrate mortars with other indirect fire assets (in the fire support plan). The FSO positions the mortars and they move by echelon on his direction. Procedures must be established where FIST are dedicated to use the 4.2 inch Mortar Platoon.

Mortars were the weak link in fire support.

The TF FSO must get with the maneuver commander and S3 and decide who is going to control the mortars. Many maneuver commanders give this responsibility to their TF FSO. The alternative is to have the mortar platoon leader move based on monitoring the maneuver net. This requires a mortar platoon leader with great initiative. Mortar employment should be kept as uncomplicated as possible. Often it helps to assign specific preplanned targets to the mortars. Also, attaching sections to lead companies can work well in offensive operations; this will alleviate the mortars being out-of-range. The mortar platoon leader and FSO must keep abreast of the updated intelligence information so:

- a. They don't let the mortar platoon get overrun in the defense.
- b. The mortars are far enough forward to support by fire in the offense. Consider using trigger lines IAW FM 7-90.
- c. Mission the mortars based on their contributions to the battle according to the commander's concept. Tell them when, and what force they are to engage.

4. Lessons Learned Bulletin - Fall 88

Problem: Units don't use mortars enough during all phases of the battle.

Successful tactics, techniques and procedures:

- a. The TF commander is responsible for employment of the mortar platoon, the mortar platoon leader is the primary advisor in that regard. The platoon leader develops the fire plan for the mortars that supports the scheme of maneuver. He also positions, moves and directs the fires of the mortar platoon.
- b. The TF FSO is doctrinally responsible for integrating mortars into the overall fire support plan. The TF FSO must work closely with the mortar platoon leader in positioning the mortars. The task force must have a mortar displacement plan.
- c. One successful technique for movement of the mortar platoon is for them to travel behind a company/team, both for protection and movement control. This technique has the added benefit of providing responsive indirect fire support (especially smoke) to the company they trail.

- d. Another technique is to place the mortars DS to a subordinate unit for specific missions. The scout platoon in the counter-recon role or the breach element in a mobility operation are examples.
- e. Consider using a limited visibility mortar fire plan on dismounted avenues and a daylight mortar fire plan on mounted avenues.

5. Fire Support Lessons Learned Bulletin – May 90

Maneuver units repeatedly fail to use their mortars effectively. Improperly positioning or employing mortars renders mortars ineffective at critical times.

The maneuver commander is responsible for employment of his mortars. The mortar platoon or section leader is responsible for advising the commander and the FSO on the best method of utilizing the mortars. The FSCOORD and the FSO must assist the maneuver commander in maximizing the advantages of this valuable asset.

The planning process for mortar employment is parallel to that used to plan fires for artillery. Positioning, movement, and logistics of the mortars is the responsibility of the maneuver force. The FSO is responsible for integrating the fires of the mortars into the fire support plan.

An effective method of integrating mortars into the fire plan is to include the leader of the mortar platoon or section in the planning and coordination of the fire support plan. It is essential the mortar leader understands the scheme of maneuver and develops a support plan accordingly.

Units that involve the FSO in the positioning and planning of mortar fires are more successful than those that do not.

A successful technique during offensive operations for controlling mortar fires is to position them behind or with the lead company/team and assign the priority of mortar fires to that maneuver force. This provides protection and movement control and facilitates their ability to provide immediate fires in support of the maneuver force.

In the defense, the mortar platoon leader with the FSO and the maneuver force commander, select positions to mass fires on likely dismounted infantry avenues of approach and to provide illumination or screening in front of the force.

Some common problems of mortar employment are:

- a. Maneuver commanders do not plan mortar Final Protective Fires (FPF).
- Company Fire Support Officers do not use mortars.
- c. Mortar platoons do not receive target lists, OPORDs, ACAs, FPFs, or priority targets.
- d. FSOs do not know what targets mortars are most effective against.
- e. TF FSOs and Maneuver S3s fail to manage mortar ammunition.
- f. The maneuver commander, TF FSO, and mortar platoon leader fail to coordinate their efforts (positioning, movement, support).

g. Communications between the FSO and mortar platoon leader during the battle is limited due to available communications assets. (An effective technique is for the TF FSO to eavesdrop on the maneuver battalion command net, and call the mortar platoon leader directly on the mortar platoon net when necessary).

LESSONS LEARNED INTEGRATED INTO CCF 7 TASK LIST

PLANNING

- 1. Direct and lead task force during planning for the battle
- 2. Receive order from higher headquarters
- 3. Conduct mission analysis
- 4. **Issue the warning order**

5. Commander issues guidance

The TF commander is responsible for employment of the mortar platoon, the mortar platoon leader is the primary advisor in that regard. The platoon leader develops the fire plan for the mortars that supports the scheme of maneuver. He also positions, moves and directs the fires of the mortar platoon.

6. Prepare staff estimates

The TF FSO is doctrinally responsible for integrating mortars into the overall fire support plan. The TF FSO must work closely with the mortar platoon leader in positioning the mortars. The task force must have a mortar displacement plan.

7. Staff develops course of action

Mortars are difficult to employ in a fast moving mech-armor environment due to their limited range. The mortar platoon leader must keep track of the battle, participate in decisions concerning his positioning, and sell his product.

Considering the impact that range has on the capability to both mass fires and support multiple companies, mortar employment should be kept as uncomplicated as possible. Often it helps to assign specific preplanned targets to the mortars. Also, attaching sections to lead companies can work well in offensive operations. Tight company commander control is recommended, e.g., "Stay one terrain feature behind; move when I move; shoot the targets I give you; and use direct lay whenever possible."

Mortar illumination should be planned for all night operations, even when the primary concept calls for no illumination. Plans need to delineate specific conditions which will trigger the use of illumination and who will make the decision. Even when gunners can acquire targets with night sights, leaders often need illumination to facilitate command and control and fire distribution. It is far more difficult that I realized to achieve effective illumination over the areas covered by modern direct fire weapons. Illumination assumptions upon which the overall concept of operations is based should be very conservative.

The planning process for mortar employment is parallel to that used to plan fires for artillery. Positioning, movement, and logistics of the mortars is the responsibility of the

maneuver force. The FSO is responsible for integrating the fires of the mortars into the fire support plan.

An effective method of integrating mortars into the fire plan is to include the leader of the mortar platoon or section in the planning and coordination of the fire support plan. It is essential the mortar leader understands the scheme of maneuver and develops a support plan accordingly.

Units that involve the FSO in the positioning and planning of mortar fires are more successful than those that do not.

- 8. Staff/CDR analyze course of action
- 9. Staff compares courses of action
- 10. Commander announces decision
- 11. Staff prepares OPORD/FRAGO

Two shortcomings in providing continuous mortar fire support are:

- a. Task force failure to practice ammunition resupply during home station training.
- b. Failure of resupply to keep pace with unit expenditures.

Logistics planning should consider prestocking of ammunition to ensure resupply keeps pace with demand. This takes coordination between maneuver and logistics planners to ensure security of prestock locations and survivability of CSS vehicles conducting resupply operations far forward.

One successful technique for movement of the mortar platoon is for them to travel behind a company/team, both for protection and movement control. This technique has the added benefit of providing responsive indirect fire support (especially smoke) to the company they trail.

Another technique is to place the mortars DS to a subordinate unit for specific missions. The scout platoon in the counter-recon role or the breach element in a mobility operations are examples.

- 12. Issue the OPORD/FRAGO
- 13. Refine the plan

PREPARATION

- 14. Command group conducts and receives briefings
- 15. Command group and/or command posts monitor, supervise, and direct execution of force protection operations and activities

16. Command group and/or command posts monitor, supervise, and direct Task force mission preparation

The 4.2 inch mortars were often ineffective due to poor positioning by the FSO/Mortar Platoon Leaders and under utilization by the FIST. Many times, the mortars were out of range of the enemy. On several occasions, the 4.2 mortar platoons were not given sufficient fire mission by the FIST. Procedures must be established to integrate mortars with other indirect fire assets (in the fire support plan). The FSO positions the mortars and they move by echelon on his direction. Procedures must be established where FIST are dedicated to use the 4.2 inch Mortar Platoon.

Mortars were the weak link in fire support.

- 17. Commander, commander's representatives, and staff conduct inspections and visits
- 18. Task Force conducts rehearsals
- 19. Task force plan modified and refined
- 20. Command post (TAC, TOC, CTCP) operations
- 21. Liaison and coordination with higher, adjacent, supported, and supporting elements

The provision of adequate fire support with limited basic load rounds requires coordination between the S3, FSO, S4 and Mortar Platoon Leader. They must ensure that the mortar platoon allocates their basic load rounds to priority targets or they prestock so that other targets can be shot on call. Mortar fires could make the difference between success and failure of the task force at the critical time and place and needs to be practiced during home-station training.

A successful technique during offensive operations for controlling mortar fires is to position them behind or with the lead company/team and assign the priority of mortar fires to that maneuver force. This provides protection and movement control and facilitates their ability to provide immediate fires in support of the maneuver force.

In the defense, the mortar platoon leader with the FSO and the maneuver force commander, select positions to mass fires on likely dismounted infantry avenues of approach and to provide illumination or screening in front of the force.

22. Command group and command posts position to control the battle

EXECUTION

- 23. Task force command posts locate where they can control the battle
- 24. Task force commander sees the battlefield

The TF FSO must get with the maneuver commander and S3 and decide who is going to control the mortars. Many maneuver commanders give this responsibility to their TF FSO. The alternative is to have the mortar platoon leader move based on monitoring the maneuver net. This requires a mortar platoon leader with great initiative. Mortar employment should be kept as uncomplicated as possible. Often it helps to assign specific preplanned targets to the mortars. Also, attaching sections to lead companies can work well in offensive operations; this will alleviate the mortars being out-of-range. The mortar platoon leader and FSO must keep abreast of the updated intelligence information so:

- a. They don't let the mortar platoon get overrun in the defense.
- b. The mortars are far enough forward to support by fire in the offense. Consider using trigger lines IAW FM 7-90.
- c. Position the mortars based on their contributions to the battle according to the commander's concept. Tell them when, and what force they are to engage.

25. Task force commander directs and leads the execution phase

Mortar platoons are often requested by maneuver elements to fire "low payoff" targets, rapidly depleting their basic load. Mortar fires need to be cleared by the Mortar Platoon Leader, FSO or the S3 to ensure rounds are allocated according to the commander's intent. Many units expend large quantities of ammunition on suppressive fire. They call upon the mortars because they are a responsive and accurate means of fire. Units must guard against equating mortar fires with stopping or destroying enemy armor units. Suppressive fire is costly in terms of round expenditures. Suppressive fire should be employed only when it will provide results that compliment the overall task force battle plan. Instead of suppressive fire, units need to identify target areas where a minimum number of rounds are critical to accomplish the commander's intent.

- 26. Task force command posts track and support the battle
- 27. Task force conducts battlefield update
- 28. Task force conducts the decision making process (accelerated)
- 29. Task force consolidates and reorganizes

CCF 7 CRITICAL TASKS AND OTHER LINKAGES

| | TASK | OTHER LINKAGES |
|----|---------------------------------|--|
| 3. | Conduct mission analysis | FSO and Mortar platoon leader advises the TF commander on the use of mortars |
| | | STP 6-13II-MQS Advise Maneuver Commander on
Employment of Available Fire Support
Assets (01-2999.94-0106) |
| | | STP 6-13F14-SM-TG Advise Supported Unit of Friendly Fire Support Capabilities and Limitations (061-284-3004) |
| 5. | Commander issues guidance | Mortar platoon leader advises and assists the FSO in understanding the use of mortars as intended by the TF commander. |
| 6. | Prepare staff estimates | FSO, with the assistance of mortar platoon leader, prepare the fire support estimate |
| | | STP 6-13II-MQSPlan Field Artillery Fire Support of
Maneuver Units (01-2999.94-0100) |
| 7. | Staff develops course of action | FSO/FSE plan for use of fire support with the assistance of mortar platoon leader |
| | | STP 6-13II-MQS - Plan Field Artillery Fire Support of Maneuver Units (01-2999.94-0100) |
| | | STP 6-13F14-SM-TG Plan and Coordinate Fire Support to
Suppress Enemy Air Defense
(061-284-4209) Plan Fire Support for Battalion or Brigade
Offensive Operations (061-284-4229) Plan Fire Support for Battalion or Brigade
Defensive Operations (061-284-4231) Produce a High Payoff Target List
(061-284-4245) |

TASK

OTHER LINKAGES

11. Staff prepares OPORD/FRAGO

FSO/FSE prepare fire support plan

STP 6-13II-MOS

 Plan Field Artillery Fire Support of Maneuver Units (01-2999.94-0100)

STP 6-13F14-SM-TG

- Post Information on a Situation Map and Overlay (061-284-1011)
- Plan and Coordinate Fire Support to Suppress Enemy Air Defense (061-284-4209)
- Plan Fire Support for Battalion or Brigade Offensive Operations (061-284-4229)
- Plan Fire Support for Battalion or Brigade Defensive Operations (061-284-4231)
- Produce a High Payoff Target List (061-284-4245)
- Produce an Attack Guidance Matrix (061-284-4246)
- Write the Fire Support Plan (061-284-4247)

12. Issue the OPORD/FRAGO

The FSE sends FS plan to other units

STP 6-13F14-SM-TG

- Pass Fire Support Information to Lower, Adjacent, and Higher Field Artillery Elements (061-284-3046)
- Coordinate Fires (061-284-4022)
- Recommend and Disseminate Fire Support Coordination Measures (061-284-4040)

13. Refine the plan

FSO/FSE refine fire support plan

STP 6-13II-MOS

 Plan Field Artillery Fire Support of Maneuver Units (01-2999.94-0100)

STP 6-13F14-SM-TG

- Post Information on a Situation Map and Overlay (O61-284-1011)
- Process Forward Observer Target Lists (061-284-3227)
- Plan and Coordinate Fire Support to Suppress Enemy Air Defense (061-284-4209)
- Plan Fire Support for Battalion or Brigade Offensive Operations (061-284-4229)
- Plan Fire Support for Battalion or Brigade Defensive Operations (061-284-4231)
- Produce a High Payoff Target List (061-284-4245)

TASK

OTHER LINKAGES

- Produce an Attack Guidance Matrix (061-284-4246)
- Write the Fire Support Plan (061-284-4247)
- 16. Companies and platoons plan fire support that supports their maneuver

Company FSOs and platoon FIST prepare fire support plans for subordinate TF elements

STP 6-13II-MOS

 Coordinate Fire Support for a Maneuver Company (01-2999.93-0001)

STP 6-13F14-SM-TG

- Post Information on a Situation Map and Overlay (061-284-1011)
- Prepare and Submit Forward Observer Target List (061-284-1001)
- Advise Supported Unit of Friendly Fire Support Requirements (061-284-3004)
- Produce Company Fire Support Plan (061-284-3226)
- 17. Command group and/or command posts monitor, supervise, and direct Task force mission preparation.

Mortar platoon plans for operations

STP 7-11C14-SM-TG

- Conduct Troop Leading Procedures (071-730-0005)
- Issue an Oral Operation Order (071-326-5505)
- Conduct a Leader's Reconnaissance (071-410-0010)
- Prepare Mortar Fire Plans (071-074-0016)
- Select Mortar Firing Positions (071-074-0017)
- Supervise Occupation of an Assembly Area (071-410-0012)
- Place a Mortar Ballistic Computer into Operation (071-082-0001)
- Prepare a Mortar Ballistic Computer with Initialization Data (071-082-0003)

STP 21-II-MOS

- Prepare Platoon or Company Combat Orders (04-3303.02-0014)
- 18. Commander, commander's representatives, and staff conduct inspections and visits.

Mortar platoon's sections prepare for operations

STP 7-11C14-SM-TG.

- Maintain Fire Control Equipment (071-076-0001)
- Maintain a 4.2-inch Mortar (071-088-0003)

- Perform Safety Check on 4.2-inch Mortar (071-322-4203)
- Boresight a 4.2-inch Mortar (071-322-4202)

STP 21-II-MQS

- Supervise Unit Maintenance Operations (01-4965.90-0001)
- Supervise Maintenance of Unit Prescribed Load List (03-5101.00-0283)
- Supervise Preventive Maintenance Checks and Services (04-4966.90-0010)

20. Task force plan modified and refined

Companies, mortar platoon, and FSE reevaluates and makes adjustments to the fire support plan.

STP 6-13II-MQS

- Plan Field Artillery Fire Support of Maneuver Units (01-2999.94-0100)
- Coordinate Fire Support for a Maneuver Company (01-2999.93-0001)

STP 6-13F14-SM-TG

- Post Information on a Situation Map and Overlay (061-284-1011)
- Process Forward Observer Target Lists (061-284-3227)
- Plan and Coordinate Fire Support to Suppress Enemy Air Defense (061-284-4209)
- Plan Fire Support for Battalion or Brigade Offensive Operations (061-284-4229)
- Plan Fire Support for Battalion or Brigade Defensive Operations (061-284-4231)
- Produce a High Payoff Target List (061-284-4245)
- Produce an Attack Guidance Matrix (061-284-4246)
- Write the Fire Support Plan (061-284-4247)
- Prepare and Submit Forward Observer Target List (061-284-1001)
- Advise Supported Unit of Friendly Fire Support Requirements (061-284-3004)
- Produce Company Fire Support Plan (061-284-3226)

STP 7-11C14-SM-TG

- Prepare Mortar Fire Plans (071-074-0016)
- Select Mortar Firing Positions (071-074-0017)
- Place a Mortar Ballistic Computer into Operation (071-082-0001)

TASK

OTHER LINKAGES

- Prepare a Mortar Ballistic Computer with Initialization Data (071-082-0003)
- Issue a Fragmentary Order (071-326-5502)

STP 21-II-MQS

- Prepare Platoon or Company Combat Orders (04-3303.02-0014)
- 23. Command group and command posts position to control the battle

Mortar platoon occupies firing position and prepares to fire

STP 7-11C14-SM-TG

- Prepare mortar ammunition for firing (071-321-4010)
- Store mortar ammunition (071-321-4012)
- Camouflage a mortar firing position (071-326-0518)
- 26. Task force commander directs and leads the execution phase

Targets identified by FO and sent to FDC, mortars fire

STP 6-13F14-SM-TG

- Determine Direction Within Target Area (061-283-1001)
- Locate a Target by Grid Coordinates (061-283-1002)
- Locate a Target by Polar Plot (061-283-1003)
- Locate a Target by Shift from a Know Point (061-283-1004)
- Request and Adjust Area Fire (061-283-1011)
- Conduct a Suppression Mission (061-283-1013)
- Conduct an Immediate Suppression Mission (061-283-1014)
- Conduct a Fire for Effect Mission (061-283-1015)
- Request and Adjust Coordinated Illumination (061-283-1021)
- Request and Adjust Final Protective Fires (061-283-2002)
- Conduct an Immediate Smoke Mission (061-283-2021)
- Conduct a Quick Smoke Mission (061-283-2023)
- Conduct a Mortar Registration (061-283-2104)
- Request Fire on Irregularly Shaped Targets (061-283-2206)

STP-7-11C14-SM-TG

- Fire a Mortar (071-074-0037)
- Record Information on Firing Records (071-076-0002)

January 28, 1994

48

TASK

OTHER LINKAGES

- Determine Firing Corrections (071-076-0005)
- Compute Angle T (071-076-0010)
- Use Mortar Firing Tables (071-321-4011)
- Talk an Untrained Forward Observer Through a Fire Mission (071-321-4014)
- Determine Data Using a Graphical Firing Scale (071-076-0006)
- Compute Re-registration Corrections Using a Firing Chart (071-080-0004)
- Compute Data for a Quick-smoke Mission Using a Firing Chart (071-080-0006)
- Compute Data for a Sheaf Adjustment Using a Firing Chart (071-080-0005)
- Process Subsequent Corrections Using a Firing Chart (071-322-1702)
- Apply Registration Corrections to the Fire Control Equipment for a 4.2-inch Mortar (071-322-1706)
- Compute Data for a Zone Mission Using a Firing Chart (071-322-1708)
- Compute Data for Illumination Mission Using a Firing Chart (071-322-1710)
- Compute Data for Coordinated Illumination Using a Firing Chart (071-322-1711)

STP 21-24-SMCT

Adjust Indirect Fire (061-283-6003)

EMPLOY MORTARS

REFERENCES

| FMs | |
|---------------|---|
| 6-20-20 | Tactics, Techniques, and Procedures for Fire Support at Battalion Task
Force and Bellow, Dec 91 |
| 7-90 | Tactical Employment of Mortars, Oct 92 |
| 23-90 | Mortars, Sep 90 |
| 23-91 | Mortar Gunnery, Dec 91 |
| 71-1 | Tank and Mechanized Infantry Company Team, Nov 88 |
| 71-2 | Tank and Mechanized Infantry Battalion Task Force, Sep 88 |
| 71-123 | Tactics Techniques and Procedures for Combined Arms Heavy Forces:
Armored Brigade, Battalion/Task Force, and Company Team; Sep 92 |
| 101-5 | Command and Control for Commanders and Staffs (Draft), July 92 |
| | |
| ARTEPs | |
| 7-90-DRILL | Drills for the Infantry Mortar Platoon, Section, and Squad, Feb 90 |
| 7-90-MTP | Mission Training Plan for the Infantry Mortar Platoon, Section, and Squad, Aug 89 |
| 7-94-MTP | Mission Training Plan for the Infantry Battalion Headquarters and Headquarters Company and Combat Support/Combat Service Support Platoons, Oct 89 |
| 71-1-MTP | Mission Training Plan for The Tank and Mechanized Infantry Company and Company Team, Oct 88 |
| 71-2-MTP | Mission Training Plan for The Tank and Mechanized Infantry Battalion Task Force, Oct 88 |
| STPs | |
| 6-13F14-SM-TG | Fire Support Specialist, MOS 13F, Soldier's Manual and Trainer's Guide: Skill Levels 1/2/3/4, Sep 93 |
| 6-13II-MQS | Military Qualification Standards II, Field Artillery Branch (13), Company Grade Officer's Manual, Mar 91 |

7-11C14-SM-TG Soldier's Manual and Trainer's Guide, MOS 11C-Indirect Fire Infantryman:

Skill Levels 1/2/3/4, Sep 88

21-II-MQS Military Qualification Standards II Manual of Common Tasks for

Lieutenants and Captains, Jan 91

21-24-SMCT Soldier's Manual of Common Tasks: Skill Levels 2-4, Oct 92

NTC Lessons Learned

Commander's Memorandum, 20 November 1985

The 27 February 1987 Issue

Commander's Comments: The CS Team, 8 May 1987

Fire Support Lessons Learned, 90-5, May 1990

Center for Army Lessons Learned:

Compendium, Volume I: Heavy Forces, Fall 1988

ARI Publications

Commander's Battle Staff Handbook: With Garrison Duties, 15 May 1993